

# 中国云南象牙参属(姜科)一新种——苍山象牙参

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## *Roscoeacangshanensis* M. H. Luo, X. F. Gao & H. H. Lin, a new species of Zingiberaceae from Yunnan, China

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**Abstract** *Roscoeacangshanensis* M. H. Luo, X. F. Gao & H. H. Lin, a new species of the Zingiberaceae from Yunnan, China, is described and illustrated. The new species is related to *R. forrestii* Cowley in habit, but differs in having 2-lobed labellum, each lobe 2-lobulate, base narrowed to a stalk with white lines, and narrower leaf blade, (2–)7–24 × 1.5–2.5 cm, with base narrow to petiole-like. The new species is also similar to *R. debilis* Gagnep. in having leaf base narrow to petiole-like, labellum obovate-cuneate, 2.5–3.5 × 2.5–3.0 cm, with white lines at throat, but differs in having bracts non-tubular, shorter, 5–15 mm long, concealed in leaf sheaths, corolla tubes longer, 10–12.5 cm long, labellum 2-lobed with each lobe further 2-lobulate.

**Key words** *Roscoeacangshanensis* M. H. Luo, X. F. Gao & H. H. Lin, Zingiberaceae, new species, Yunnan, China.

**摘要** 描述了中国云南姜科Zingiberaceae一新种——苍山象牙参*Roscoeacangshanensis* M. H. Luo, X. F. Gao & H. H. Lin。该种与大理象牙参*R. forrestii* Cowley在体态上相近, 但唇瓣深裂成2裂片, 每个裂片再2裂, 基部收缩成具白色条纹的柄, 叶片较狭窄, (2–)7–24 × 1.5–2.5 cm, 叶片基部狭缩成叶柄状而不同。该新种叶片基部狭缩成叶柄状, 唇瓣倒卵状楔形, 长2.5–3.5 cm, 宽2.5–3.0 cm, 基部收缩成具白色条纹的柄, 与长柄象牙参*R. debilis* Gagnep.相似, 但苞片非管状, 较短, 长5–15 mm, 隐藏于叶鞘内, 花冠管较长, 10–12.5 cm, 唇瓣深裂成2裂片, 每个裂片再2裂, 可与后者明显区别。

**关键词** 象牙参属; 苍山象牙参; 姜科; 新种; 云南; 中国

本文作者在进行“中国象牙参属系统进化与生药学研究”课题的野外调查时, 于2005年7月在云南大理苍山中和寺附近的松林下海拔2600 m的沟边, 发现一种姜科Zingiberaceae象牙参属*Roscoeacangshanensis* M. H. Luo, X. F. Gao & H. H. Lin植物。该植物时值花期, 呈小片分布。我们沿中和

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寺旁的小溪行约3 km, 发现了6小片, 每片十几株至八十几株。经仔细核对, 发现该植物与象牙参属已知的种类(Wu, 1981; Zhu, 1988; Tong, 1992, 1997; Wu & Larsen, 2002)不同, 是一个新种。

苍山象牙参 新种 图1, 2

***Roscoea cangshanensis*** M. H. Luo, X. F. Gao & H. H. Lin, sp. nov. Figs. 1, 2

Species affinis *R. forrestii* Cowley, a qua differt foliis angustioribus, 1.5–2.5 cm latis, basi angustatis et petioloideis, labello profunde bilobo, basi in stipitem albo-striatum longitudinaliter angustato, lobo omnis bipartito; haec species habitu etiam *R. debili* Gagnep. similis, sed a qua differt bracteis brevioribus, 5–15 mm longis, corollae tubo longiore, 10–12.5 cm longis, labello profundo-bilobo, lobo omnis bipartito.

Herba perennis, 22–30 cm alta. Radices 3–8, fasciculatae, carnosae, subfusiformes vel teretiusculae, 2.2–4.6 cm longae, 2.5–4.5 mm diam. Vaginae elaminatae 3–4, membranaceae, tubulosae, striis longitudinali-atrovirescentibus conspicue instructae. Folia 3(4); laminae lanceolatae vel lineari-lanceolatae, (2–)7–24 cm longae, 1.5–2.5 cm latae, basi angustatae et petioloideae, apice breviter acuminatae vel acuminatae, utrinque glabrae. Ligulae subsemicirculares, circ. 1.5 mm longae, glabrae. Spica 2–3 flori, pedunculo in vagina occultanti. Flores purpureo-rubri vel pallide purpurei. Bractee non tubulosae, 5–15 mm longae, 4–5 mm latae, apice acuminatae, luteo-virides, membranaceae, glabrae. Calyx tubulosus, 5.5–7 cm longus, apice bidentatus, praeter apicem luteo-viridis ceterum albus, glaber. Corollae tubus 10–12.5 cm longus, apice purpureus ceterum albus; lobis subequilongis; dorsalibus oblongis, 1.5–2.5 cm longis, 8–12 mm latis, apice mucronatis; lateralibus lineari-oblongis, 1.5–2.5 cm longis, 3–4 mm latis, apice integris. Labellum deflexum, obovato-cuneatum, 2.5–3.5 cm longum, 2.5–3.0 cm latum, ad basim in stipitem albo-striatum longitudinaliter angustatum, profunde bilobum, lobo omnis bipartito. Staminodium lateralis obovatum, circ. 1.2 cm longum, circ. 7 mm latum, nervo excentrici. Antherae theca circ. 6 mm longa, alba, ad basim in connectivi appendicem circ. 3 mm longam elongata. Ovarium teres, circ. 1.2 cm longum. Stylus linearis, albus, glaber. Stigma album, ciliatum. Glandes epigynae lineares, circ. 4 mm longae. Fl. Jul.–Aug.

**China. Yunnan** (云南): Dali (大理), Cang Shan (苍山), alt. 2600 m, under pine forest, streamside, 2005-07-25, M. H. Luo (罗明华) 5017 (holotype, EMA; isotype, PE).

多年生草本, 高22–30 cm。根3–8条, 簇生, 肉质, 近纺锤形或圆柱形, 长2.2–4.6 cm, 粗2.5–4.5 mm。具无叶片的叶鞘3–4枚, 膜质, 管状, 具明显的深绿色纵条纹。叶3(4)枚, 披针形或线状披针形, 长(2–)7–24 cm, 宽1.5–2.5 cm, 叶片基部狭缩成叶柄状, 顶端渐尖或短渐尖, 两面无毛。叶舌近半圆形, 长约1.5 mm, 无毛。穗状花序具2–3花, 花序梗隐藏在叶鞘内。花紫红色或淡紫色。苞片非管状, 长5–15 mm, 宽4–5 mm, 顶端渐尖, 黄绿色, 膜质, 无毛。花萼管状, 长5.5–7 cm, 顶端具2齿, 除顶部黄绿色外其余白色, 无毛。花冠管状, 花冠管长10–12.5 cm, 顶部紫色, 其余白色; 裂片近等长, 背裂片长圆形, 长1.5–2.5 cm, 宽8–12 mm, 顶端具短尖头; 侧裂片线状长圆形, 长1.5–2.5 cm, 宽3–4 mm, 顶端全缘。唇瓣反折, 倒卵状楔形, 长2.5–3.5 cm, 宽2.5–3.0 cm, 基部收缩成具白色条纹的柄, 深裂成2裂片, 每个裂片再2裂。侧生退化雄蕊倒卵形, 约长1.2 cm, 宽约7 mm, 非中央脉。花药室长约6 mm, 白色, 基部延长成约3 mm的淡黄色的药隔附属体。子房圆柱状, 长约1.2 cm。花柱线形, 白色, 无毛; 柱头白色, 具睫毛。上位腺体线形, 长约4 mm。花期7–8月。

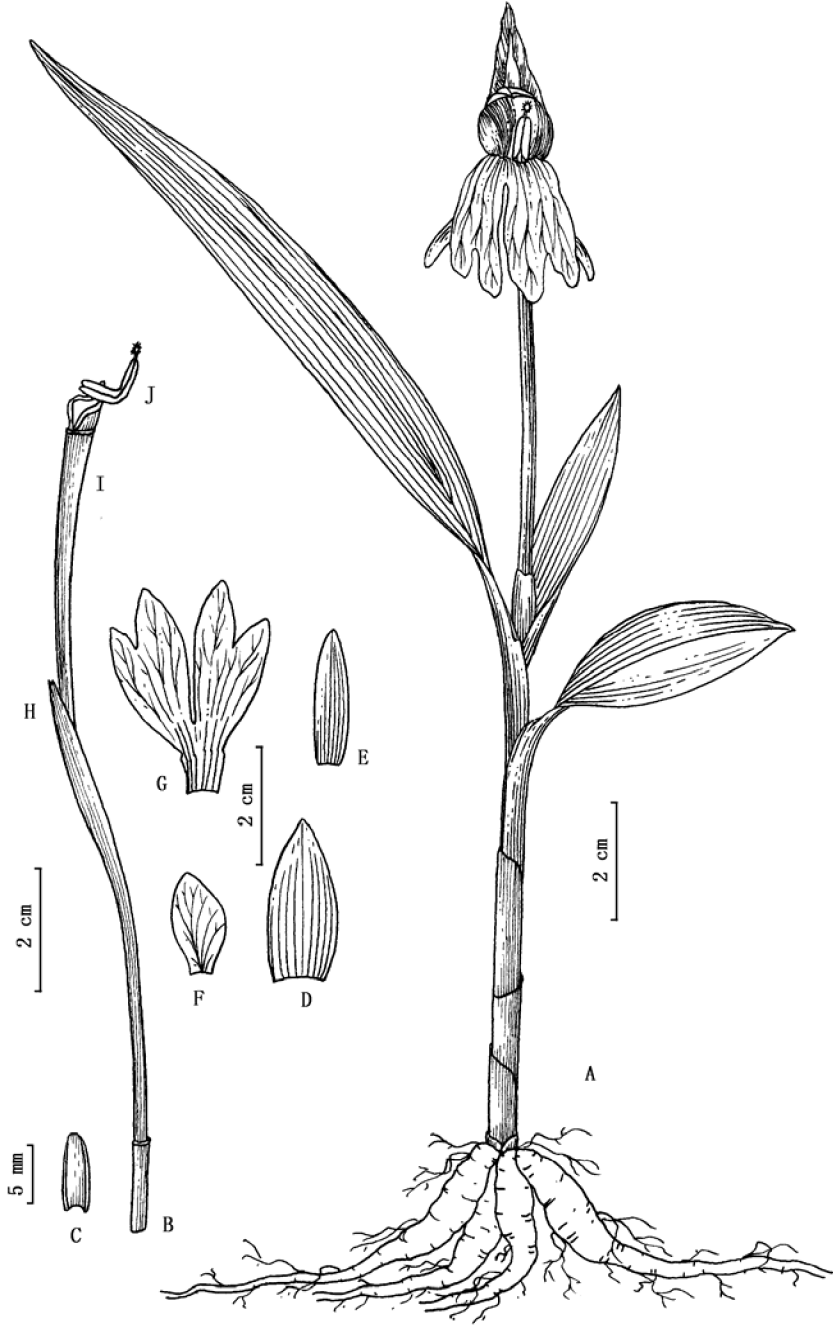


图1 苍山象牙参 A, 体态; B, 子房; C, 苞片; D, 花冠背裂片; E, 花冠侧裂片; F, 侧生退化雄蕊; G, 唇瓣; H, 花萼; I, 花冠管; J, 花药和柱头。(任忠杰根据罗明华5017号标本绘)

Fig. 1. *Roscoeacangshanensis* M. H. Luo, X. F. Gao & H. H. Lin. A, habit; B, ovary; C, bract; D, central lobe of corolla; E, lateral lobe of corolla; F, lateral staminode; G, labellum; H, calyx; I, corolla tube; J, anther and stigma. Drawn by Z. J. Ren from the type gathering, M. H. Luo 5017 (EMA).

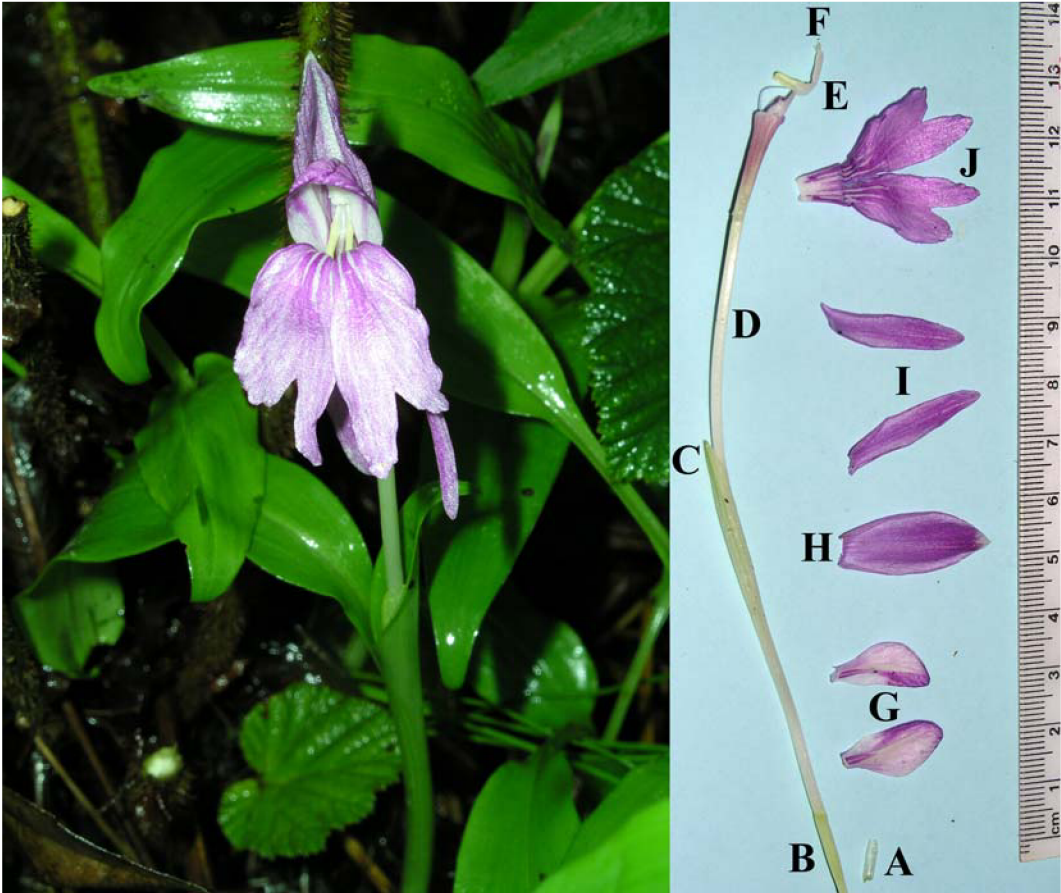


图2 苍山象牙参花期生境照片 A, 苞片; B, 子房; C, 花萼; D, 花冠管; E, 花药; F, 柱头; G, 侧生退化雄蕊; H, 花冠背裂片; I, 花冠侧裂片; J, 唇瓣。  
Fig. 2. *Roscoeacangshanensis* M. H. Luo, X. F. Gao & H. H. Lin in flower in the wild. A, bract; B, ovary; C, calyx; D, corolla tube; E, anther; F, stigma; G, lateral staminode; H, central lobe of corolla; I, lateral lobe of corolla; J, labellum.

本种与大理象牙参*R. forrestii* Cowley在体态上相近, 但叶片较狭窄, (2-)7-24×1.5-2.5 cm, 叶片基部狭缩成叶柄状; 唇瓣深裂成2裂片, 每个裂片再2裂, 基部收缩成具白色条纹的柄而不同。在大理象牙参, 叶片较宽, 6.5-13×2-5 cm, 唇瓣基部无白色条纹, 唇瓣裂片不分裂。该新种叶片基部狭缩成叶柄状, 唇瓣倒卵状楔形, 长2.5-3.5 cm, 宽2.5-3.0 cm, 基部收缩成具白色条纹的柄与长柄象牙参*R. debilis* Gagnep.相似, 但苞片非管状, 较短, 长5-15 mm, 隐藏于叶鞘内; 花冠管较长, 10-12.5 cm; 唇瓣深裂成2裂片, 每个裂片再2裂而不同。

本种目前仅在云南大理苍山中和寺附近的沟边发现, 生于海拔2600 m左右的云南松林下的红棕壤中, 生境阴暗、潮湿。该种个体数量不多, 因此需要保护。据本次调查, 大理象牙参*R. forrestii* Cowley分布在云南大理、丽江、宁蒗和四川盐源等市县海拔2800-3200 m的林下, 长柄象牙参*R. debilis* Gagnep.则分布于云南大理、嵩明和四川会理、会东等市县海拔2000-2400 m林下或林缘。这两种数量多, 分布广泛。

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